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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,395	06/22/2001	Christophe Dauga	P 0281180 B00/1600US	4258

909 7590 02/03/2003

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EXAMINER

SHAW, SHAWNA JEANNINE

ART UNIT	PAPER NUMBER
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3737

DATE MAILED: 02/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/886,395

Applicant(s)

DAUGA, CHRISTOPHE

Examiner

Shawna J. Shaw

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

Drawings

2. The drawings are objected to because the boxes in figure 4 should be descriptively labeled. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: On page 1 line 9, it is unclear what is meant by "land". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 line 2, claim 15 line 1 and claim 16 line 1, "a polarization analyser element or analyser" is vague and indefinite in that it is unclear what precisely is being claimed. For example, is a polarization analyser *element* (i.e., a portion of an analyser)

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being claimed, or a polarization analyser, or just an analyser? Furthermore, from the specification it is unclear whether "polarization analyser element" or "analyser" encompass "polarization rotators," "beam splitters" (see Specification p. 9 line 35 – p.10 line 5), liquid-crystal filters and/or rotatable polarization filters. Furthermore, if "polarization analyser" refers merely to a polarization filter, it is unclear how the filter itself "analyses" the polarization.

In claim 9, it is unclear how the step of "analysing" the the polarization beam is performed before the digital images are taken and processed. It is further unclear what element performs the actual analysis of the polarization.

In claim 6 line 1, it is unclear which analyser "the analyser" is referring to. In claim 6 line 2 and claim 21 line 2, "the cross polarization" and "the parallel polarization" lack antecedent basis. In claims 13 and 14, "program code means" is vague and indefinite and is in improper means-plus-function format in that a function is not associated therewith. In claim 14 line 3, "said program" lacks antecedent basis. In claims 1, 9, 15, 16 and 17, "the said surface" should be --the surface--. Moreover, it appears that claim 23 should depend from claim 21 instead of claim 22.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

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(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

5. Claims 1-6 and 8-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Jacques.

Regarding claims 1, 15 and 16 Jacques teach an apparatus designed to examine a surface including a polarization analyzer element (38), means for taking digital images (50), and a processing unit (54) capable of calculating the brightness and intensity of a plurality of points on the surface from pixels of at least two images (col. 5 line 50 – col. 6 line 7). Regarding claims 2 and 17, Jacques teach a source (2, 6) of polarized light. Regarding claims 3-5 and 18-20, Jacques teach a non-coherent white light source (col. 4 lines 48-49) wherein it is understood that white light is substantially similar to the solar spectrum (see the specification of the present invention p. 8 lines 5-7). Regarding claims 6, 8 and 21, Jacques teach a means (38) for alternatively transmitting cross polarization and parallel polarization using electronic switching (col. 5 lines 34-39).

Regarding claims 9-12, Jacques teach a method for examination of a surface including: “analysing” the polarization of a light beam reflected by the surface (38, col. 5 lines 28-39), taking digital images with camera (50) and performing image processing (54) of the different intensities of a plurality of points on the surface from pixels of at least two images (col. 5 line 50 – col. 6 line 7). Regarding claims 13 and 14, Jacques further teach implementing image processing software (54).

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacques.

Regarding claims 7, 22 and 23, Jacques differs from the claimed invention in that electronic switching means are used instead of a rotating analyser. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use a rotating polarization analyser instead of an electrically tunable liquid crystal analyser because Applicant has not disclosed that a rotatable analyser provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with a rotating analyser because it would be capable of alternately transmitting parallel- and perpendicular- polarization.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawna J. Shaw whose telephone number is (703) 308-2985. The examiner can normally be reached on 9:00 a.m. - 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin Lateef can be reached on (703) 308-3256. The fax phone numbers

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for the organization where this application or proceeding is assigned are (703) 305-3590 for regular communications and (703) 308-0758 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.



Shawna J. Spaw
Primary Examiner
January 28, 2003